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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,718	01/16/2004	Juzer Jangbarwala	M03A205-CIP	8200

20411 7590 01/10/2008  
THE BOC GROUP, INC.  
575 MOUNTAIN AVENUE  
MURRAY HILL, NJ 07974-2064

EXAMINER
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NGUYEN, NGOC YEN M

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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01/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/759,718	Applicant(s) JANGBARWALA, JUZER	
	Examiner Ngoc-Yen M. Nguyen	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE '129 in view of JP 07-232,915.

DE '129 discloses a process and apparatus for purifying waste gas or air containing fluorine. The waste gas or air is purified in a gas washer incorporated in the discharge line. The water from this washer is recirculated through a cycle where at least part of the dissolved harmful constituents is removed. This circuit contains one or more, such as two anion exchangers, which are regenerated at intervals using potassium hydroxide liquor (note English abstract). From the Figure, exhaust gas containing fluorine is introduced into a gas scrubber 1 and water is injected thereto through nozzles 2. The resulted water which contains dissolved fluorine is collected in tank 4 before passing through vessel 5 to remove solid particles and then it is fed to the anion exchanger 6. The water discharged from anion exchanger 6 is collected in tank 7 and from tank 7 the water is fed either to nozzles 2 or tank 4. This is considered as a closed loop for the water. DE '129 discloses that fresh water 8 can be added to replace any lost water.

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DE '129 discloses that potassium hydroxide can be used to regenerate the anion exchanger, however, it would have been obvious to one of ordinary skill in the art to use any caustic solution, beside KOH, as long such solution can effectively regenerate the anion exchanger.

The difference is DE '129 does not disclose the use of ammonium hydroxide as the regenerant.

JP '915 discloses a process to recover F ion in a waste water by bringing a weakly basic ion-exchange resin having adsorbed the F ion into contact with ammonium hydroxide and eluting the F ion. The basic ion-exchange resin is used to remove the F ion from a waste water by adsorption. The basic ion-exchange resin is regenerated by using ammonium hydroxide as an eluate to obtain the F ion as ammonium fluoride. The aqueous ammonium fluoride solution is then concentrated and recovered (note English abstract).

JP '915 does not specify that the ammonium hydroxide is a waste ammonium hydroxide, however, it would have been obvious to one skilled in the art to use any source of ammonium hydroxide as long such ammonium hydroxide can regenerate the basic ion-exchange resins. If there was an available source of ammonium hydroxide waste available, it would have been obvious to one of ordinary skill in the art to use the waste source in order to minimize the cost of fresh regenerant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to regenerate the anion exchange resin in the process of DE '129

with ammonium hydroxide, as suggested by JP '915 because ammonium hydroxide can be used effectively to regenerate the anion exchange resin.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on a Part time schedule.

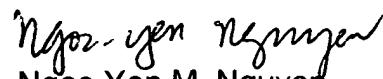
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Ngoc-Yen M. Nguyen  
Primary Examiner  
Art Unit 1793

nmn

January 7, 2008